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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,254	01/03/2002	Jan Uilke Stoffelsma	000023.00106	9404
27557	7590	10/22/2003	EXAMINER	
BLANK ROME LLP 600 NEW HAMPSHIRE AVENUE, N.W. WASHINGTON, DC 20037			KUHNS, ALLAN R	
			ART UNIT	PAPER NUMBER

1732

DATE MAILED: 10/22/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
10/034,254Applicant(s)  
STOFFELSMA ET AL.Examiner  
KUHN SGroup Art Unit  
1732

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THESE (3) MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-30 AND 32-35 is/are pending in the application.
- ☐ Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-30 AND 32-35 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
  - ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

Office Action Summary

1. Claims 1-30 and 32-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 23 are confusing because they state that a molten thermoplastic "comprises" a blowing agent rather than "contains" a blowing agent. Clearly, the blowing agents disclosed are not thermoplastics. In addition, claim 4 is indefinite since "taken" is used rather than "selected". Also, claims 25 and 26 are indefinite due to the use of "such as". Claims 28 and 30 would be more clear if "said amount" rather than "an amount" was inserted, and claim 30 contains the confusing designation "2t". Clarification is required.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20, 23-30 and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa et al. (5,830,393). Nishikawa et al. disclose or suggest the basic claimed method of forming a foam from at least one molten thermoplastic wherein a thermoplastic containing a foaming agent is subjected under pressure to a forming operation, and after the pressure is released, is cooled. Nishikawa et al. appear not to explicitly teach that a closed cell microfoam is formed, but such would have been obvious to one of ordinary skill in the art in order to form a foam having cell sizes disclosed in Table I. Nishikawa et al. do not describe the amount of foaming agent used in the manner of claims 1 and 23, but such an amount is inherently within the

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range of the cited reference reported at column 9, lines 62-67, based on the weight percentages recited in instant claims 5-6 and 27-30.

Nishikawa et al. teach the use of foaming agents, as in claims 2-4 and 24-26, at column 10, lines 27-42. It is submitted that the use of an extrusion method, as in claim 9, by Nishikawa et al. inherently provides a pressure drop rate within the range of claims 7-9.

Nishikawa et al. teach the use of a nucleating agent, as in claims 10-14 and 32-33, at column 11, lines 25-39. Nishikawa et al. also disclose a relationship between particle size and cell diameter at column 11, lines 36-39 such that one of ordinary skill in the art would have determined relationships presented in the table of claim 14 through routine experimentation. Nishikawa et al. teach the use of polypropylene, as in claim 17, polyvinyl chloride, as in claim 15, and the use of active agents as in claim 18-19 and 34. Use of impact modifiers, as in claims 16-17 and 35, are well known and their use would have been obvious to one of ordinary skill in the art in order to adjust physical properties of the extrudate.

4. Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa et al. as applied to claims 1-20, 23-30 and 32-35 above, and further in view of Conlon. Conlon teaches the aspect of forming a thermoplastic pipe having closed inner and outer walls. It would have been obvious to one of ordinary skill in the art to practice the process of Nishikawa et al. to produce a pipe structure like that of Conlon since Conlon teaches that such a structure has utility. It is submitted that claim 21 is

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readable on inner and outer walls which have not been foamed and contain no cells, as in Conlon.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is 703-308-3462. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaanni, can be reached on (703) 305-5493. The fax phone number for the organization where this application or proceeding is assigned is 703 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

*Allan R. Kuhns*

ALLAN R. KUHN  
PRIMARY EXAMINER AU 1732

10-9-03